Figure 8. Pathway Diagram: Retinol metabolism in chronic disease and aging.

ME/CFS: Correcting Chronic Mitochondrial Dysfunction

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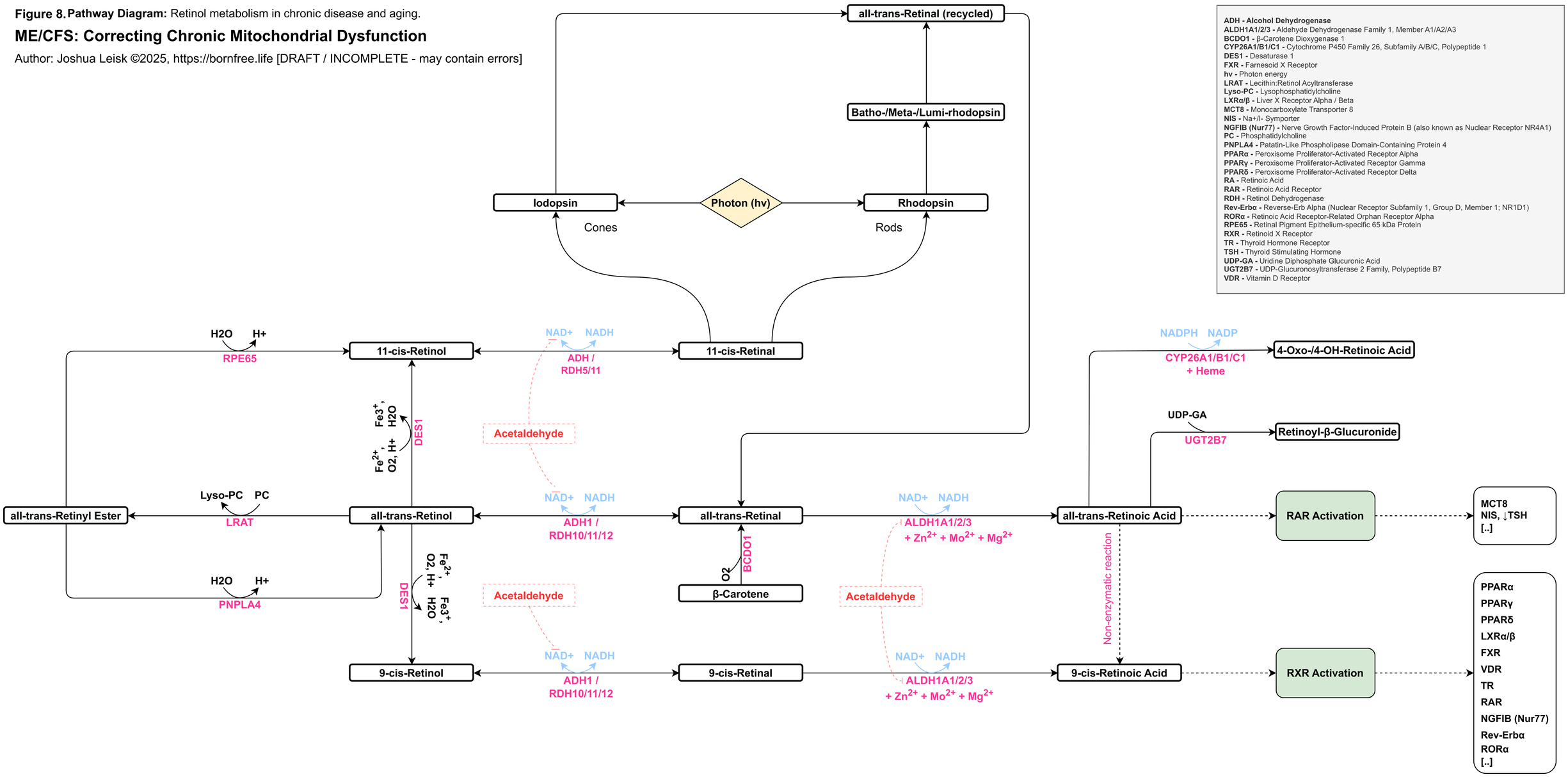

ADH - Alcohol Dehydrogenase
ALDH1A1/2/3 - Aldehyde Dehydrogenase Family 1, Member A1/A2/A3
BCDO1 - β-Carotene Dioxygenase 1
CYP26A1/B1/C1 - Cytochrome P450 Family 26, Subfamily A/B/C, Polypeptide 1
DES1 - Desaturase 1
FXR - Farnesoid X Receptor
hv - Photon energy
LRAT - Lecithin:Retinol Acyltransferase
Lyso-PC - Lysophosphatidylcholine
LXRα/β - Liver X Receptor Alpha / Beta
MCT8 - Monocarboxylate Transporter 8
NIS - Na+/I- Symporter
NGFIB (Nur77) - Nerve Growth Factor-Induced Protein B (also known as Nuclear Receptor NR4A1)
PC - Phosphatidylcholine
PNPLA4 - Patatin-Like Phospholipase Domain-Containing Protein 4
PPARα - Peroxisome Proliferator-Activated Receptor Alpha
PPARγ - Peroxisome Proliferator-Activated Receptor Gamma
PPARδ - Peroxisome Proliferator-Activated Receptor Delta
RA - Retinoic Acid
RAR - Retinoic Acid Receptor
RDH - Retinol Dehydrogenase
Rev-Erbα - Reverse-Erb Alpha (Nuclear Receptor Subfamily 1, Group D, Member 1; NR1D1)
RORα - Retinoic Acid Receptor-Related Orphan Receptor Alpha
RPE65 - Retinal Pigment Epithelium-specific 65 kDa Protein
RXR - Retinoid X Receptor
TR - Thyroid Hormone Receptor
TSH - Thyroid Stimulating Hormone
UDP-GA - Uridine Diphosphate Glucuronic Acid
UGT2B7 - UDP-Glucuronosyltransferase 2 Family, Polypeptide B7
VDR - Vitamin D Receptor

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